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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,670	01/30/2006	Yoshihiro Kobayashi	81880.0137	5947
26021 7590 10/04/2007 HOGAN & HARTSON L.L.P. 1999 AVENUE OF THE STARS SUITE 1400 LOS ANGELES, CA 90067			EXAMINER ↑ CONNELLY CUSHWA, MICHELLE R	
			ART UNIT	PAPER NUMBER
			2874	
			MAIL DATE	DELIVERY MODE
			10/04/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/566,670

Applicant(s)

KOBAYASHI ET AL.

Examiner

Michelle R. Connelly-Cushwa

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 25 is/are rejected.
- 7) ☒ Claim(s) 8-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 1/06, 4/06, 5/06, 8/07.
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The prior art documents submitted by applicant in the Information Disclosure Statements filed on January 30, 2006; April 27, 2006; May 17, 2006; and August 15, 2007 have all been considered and made of record (note the attached copies of form PTO-1449).

### ***Drawings***

Nineteen (19) pages of drawings were filed on January 30, 2006 and have been accepted by the Examiner.

### ***Specification***

The abstract of the disclosure is objected to because the abstract contains more than one paragraph. The abstract should consist of a brief narrative of the disclosure as a whole in a *single paragraph* of 150 words or less commencing on a separate sheet following the claims. See MPEP § 608.01(b). Correction is required.

### ***Claim Objections***

**Claims 3-7 and 20-24 are objected to because of the following informalities:**  
They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 3-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Regarding claims 3-7; Claims 3 and 4 recite the limitation "the combination" in the last line of each of these claims. There is insufficient antecedent basis for this limitation in the claim. It is not apparent what combination applicant is referring to and, therefore, the claims are too indefinite. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. Claims 5-7 inherently contain the deficiencies of the base and intervening claims from which they depend. Claims 3-7 have not been further considered with respect to prior art.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 2 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilson et al. ("An Evaluation of Fiber Optic Connectors for LAN Applications", SPIE Vol. 722 *Components for Fiber Optic Applications*, 1986, pages 140-146).**

Regarding claims 1 and 25; Wilson et al. discloses a method for estimating connection loss of an optical connector including a ferrule (see Figures 1 and 2), which has a through-hole along the longitudinal direction, and an optical fiber which is inserted and fixed into the ferrule (see page 141), comprising steps of:

- calculating axial misalignment based on both of at least distribution data of dimension parameters of the ferrule and at least distribution data of dimension parameters of the optical fiber (see Table 2 on page 144 and see page 145);
- calculating connection loss based on the axial misalignment (see page 145); and
- simulating distribution of the connection loss (see page 145 and Figure 11).

Regarding claim 2; the "Theoretical Analysis" section of Wilson et al. discloses all of the limitations of claim 2 (see pages 141-142 and Figure 3).

#### ***Allowable Subject Matter***

Claims 8-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not disclose or reasonably suggest:

- a method as defined in claim 8, wherein the distribution of the connection loss is calculated by calculating orientation error based on

distribution data of angle parameters of the ferrule; calculating the sum of the orientation errors in terms of vector quantity in a plane perpendicular to an axial direction of the optical fiber and the ferrule; and calculating distribution of axial misalignment and/or orientation error in a connection state in combination with the other limitations of the base claim;

- a method as defined in claim 14, wherein the n-th moment of connection loss is calculated by calculating orientation error based on distribution data of angle parameters of the ferrule; calculating the sum of the orientation errors in terms of vector quantity in a plane perpendicular to an axial direction of the optical fiber and the ferrule; and calculating the n-th moment of axial misalignment and/or orientation error in a connection state in combination with the limitations of the base claim;
- a method as defined in claim 20, wherein the n-th moment of connection loss is calculated by performing tuning, that is a method for aligning a misaligned direction of a single plug including the ferrule and the optical fiber, based on both of distribution data of axial misalignment of the single plug, and distribution data of a diameter of the ferrule; and calculating the n-th moment of axial misalignment in the tuned connection state in combination with the limitations of the base claim.

Claims 9-13 depend from claim 8; claims 14-19 depend from claim 14; claims 21-24 depend from claim 20.


**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Ludman et al. (US 4,563,057)

Any inquiry concerning the merits of this communication should be directed to Examiner Michelle R. Connelly-Cushwa at telephone number (571) 272-2345. The examiner can normally be reached 9:00 AM to 7:00 PM, Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney B. Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general or clerical nature should be directed to the Technology Center 2800 receptionist at telephone number (571) 272-1562.

  
Michelle R. Connelly-Cushwa  
Patent Examiner  
September 30, 2007